

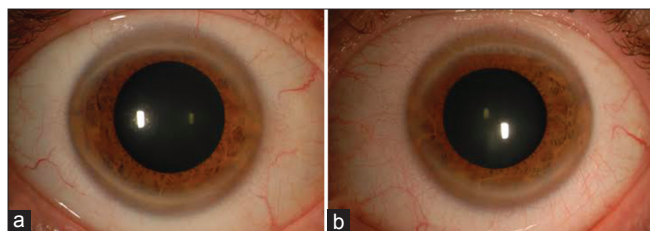
Rings on the eyes, matters of the heart

Case

An asymptomatic 44-year-old Caucasian woman was found to have a suspicious choroidal melanocytic tumor in the left eye (OS) that had shown recent growth from 1.6 to 2.0 mm thickness. On examination, the visual acuity was 20/20 in each eye. Funduscopy disclosed the mass as choroidal nevus with overlying drusen, measuring 5 mm in basal dimension and 2.6 mm in thickness. Observation was advised. However, anterior segment evaluation revealed bilateral corneal arcus juvenilis. Upon questioning, there was family history of hyperlipidemia and cardiovascular disease (CVD) in first-degree relatives.

What is Your Next Step?

- Fasting lipid panel.
- Corneal transplantation.
- Excisional biopsy.
- Increase statin dosage.



Findings

Based on bilateral corneal arcus juvenilis, fasting lipid panel was advised. Historically, she demonstrated increased serum cholesterol (241 mg/dL [normal <200 mg/dL]) and LDL (176 mg/dL [normal <129 mg/dL]). Nine months after initiation of statin therapy, lipid profile showed a 34% decrease in serum cholesterol (159 mg/dL) and 43% decrease in LDL (100 mg/dL). Corneal arcus remained stable following lipid control.

Diagnosis: Corneal arcus juvenilis.

Correct answer: a.

Discussion

Corneal arcus juvenilis is extracellular deposition of lipid in the peripheral cornea. It is a clinical sign for underlying

chronic hyperlipidemia, along with xanthelasma, cutaneous xanthoma, and lipemia retinalis.^[1] Corneal arcus in patients <50 years can indicate a lipid metabolism disorder, prompting evaluation with serum lipid panel, CVD risk stratification, and early intervention with lifestyle modification or initiation of lipid-lowering pharmacotherapy to reduce CVD risk. Males <50 years old with this condition have a 6.4 times risk for CVD-related mortality compared to non-cases due to blood lipid abnormalities.^[2] Statin medication can reduce this risk by 25% per 38.7 mg/dL LDL reduction.^[3]

Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent forms. In the form the patient(s) has/have given his/her/their consent for his/her/their images and other clinical information to be reported in the journal. The patients understand that their names and initials will not be published and due efforts will be made to conceal their identity, but anonymity cannot be guaranteed.

Financial support and sponsorship

Nil.

Conflicts of interest

There are no conflicts of interest.

References

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